Date: **September, 2004**

Guidelines For Estimating
Cow-Calf Production Costs
Based on a 150 Head Cow Herd

Livestock values in this document may be subject to change as the market responds to the BSE situation. However, it is important to base your decisions not only on market information, but also on the cost of production for your particular operation.

This guide is designed to provide you with planning information and a format for calculating costs of production of a cow calf enterprise. Adjustments will be necessary when applying these figures to your own enterprise.

The budget estimates are based on a number of assumptions which are clearly defined in the supporting pages. Productivity and performance assumptions are based on data supplied by specialists as well as data collected from certain producers. Input costs are based on recommended practices and/or information obtained from producers. Good management is assumed in that a balanced ration is being fed, livestock are on a herd health program and handling facilities are included.

Disclaimer: This budget is only a guide and is not intended as an in depth study of the cost of production of the Manitoba cattle industry. Interpretation and utilization of this information is the responsibility of the user. If you require assistance with developing your individual budget, please contact your local MAFRI Farm Management Specialist or Livestock Specialist.

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Cow-Calf Production Costs September, 2004
Based on a 150 Cow Herd

A. Operating Costs	Cost/Cow	Total Cost	Your Cost
1. Feed Costs			
1.01 Grain	$5.13	$770	
1.02 Hay	$161.00	$24,150	
1.03 Salt & Minerals	$20.30	$3,045	
Total Feed Cost	**$186.43**	**$27,965**	
2. Other Operating Costs			
2.01 Straw	$18.00	$2,700	
2.02 Veterinary Medicine & Supplies	$21.77	$3,265	
2.03 Breeding Costs	$28.17	$4,226	
2.04 Fuel, Maintenance & Repairs	$24.00	$3,600	
2.05 Utilities	$10.00	$1,500	
2.06 Marketing & Transportation	$24.14	$3,621	
2.07 Death Loss	$8.75	$1,313	
2.08 Manure Removal	$16.67	$2,501	
2.09 Insurance	$7.81	$1,172	
2.10 Herd Replacement	$48.00	$7,200	
2.11 Miscellaneous	$6.67	$1,001	
Subtotal Operating Costs	$400.41	$60,064	
2.12 Operating Interest	$12.01	$1,802	
Total Operating Costs	**$412.42**	**$61,866**	
B. Fixed Costs			
3. Depreciation			
3.01 Buildings	$12.72	$1,908	
3.02 Machinery & Equipment	$40.00	$6,000	
4. Investment			
4.01 Buildings	$3.82	$572	
4.02 Machinery & Equipment	$9.00	$1,350	
4.03 Livestock	$21.00	$3,150	
4.04 Pasture Land & Fencing	$51.55	$7,733	
Total Fixed Costs	**$138.09**	**$20,713**	
Total Operating and Fixed Costs	**$550.51**	**$82,579**	
C. Labour	$90.00	$13,500	
Total Cost of Production	**$640.51**	**$96,079**	

Breakeven price	$/cwt	
A. Operating Costs	$75.50	
B. Operating & Fixed Costs	$100.78	
C. Operating, Fixed & Labour Costs	$117.26	

Breakeven Price $/cwt = Cost ÷ 95% calf crop ÷ calf weight (5.75cwt)

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Assumptions

1. This budget outlines the cost of production for a cow calf operation with 150 cows, 6 bulls and 95% calf crop weaned.
2. Building and equipment are valued at new cost.
3. All feed is valued at market value.
4. Manure removal is contracted out.
5. Replacement heifers are valued at fair market value.
6. This budget assumes an average weaning weight of 575 lbs. (steer calves 600 lbs and heifer calves 550 lbs.)

Cow-Calf Production Worksheet

A. Operating Costs

1. Feed Costs

1.01 Barley (processed)

	2.00	lbs barley/cow/day	
x	60.00	days/year	
÷	48.00	lbs/bu	
x	$2.05	/bushel	
=	**$5.13**	**/cow**	

1.02 Hay (for cows)

	2.50	tons good quality	
x	$50.00	/ton	
=	$125.00	/cow	
	1.20	tons low quality	
x	$30.00	/ton	
=	$36.00	/cow	
Total =	**$161.00**	**/cow**	

1.03 Salt and Minerals

	35.00	lbs salt/cow/year	
x	$0.10	/lb	
=	$3.50	/cow	
	35.00	lbs mineral/cow/year	
x	$0.48	/lb	
=	$16.80	/cow	
Total =	**$20.30**	**/cow**	

2. Other Operating Costs

2.01 Straw

	1.00	tons/cow/year	
x	$18.00	/ton	
=	**$18.00**	**/cow**	

2.02 Veterinary Medicine & Supplies

Calf Medication

	$0.42	/calf blackleg	
x	95.00	% calf crop	
=	$0.40	/cow	

Cow Medication

	$2.80	/cow IBR	
+	$2.90	/cow Scourguard 3	
+	$7.50	/cow footrot,louse	
+	$0.64	/cow ADE	
=	$13.84	/cow	

Herd Health Program

	$135.00	/hour charge	
x	6.00	hours	
÷	150.00	cows	
=	$5.40	/cow	

Mileage

	$1.00	/km charge	
x	80.00	kilometres	
x	4.00	visits	
÷	150.00	cows	
=	$2.13	/cow	

Total	=	**$21.77**	**/cow**

2.03 Breeding Costs

Feed for Bulls

Hay

	4.00	tons good quality	
x	$50.00	/ton	
x	6.00	bulls	
÷	150.00	cows	
=	$8.00	/cow	

Barley		7.00	lbs barley/bull/day	
	x	120.00	days	
	÷	48.00	lbs/bu	
	x	$2.05	/bushel	
	x	6.00	bulls	
	÷	150.00	cows	
	=	$1.44	/cow	
Total	=	$9.44	/cow	

Straw for Bulls

	1.00	tons/bull/year	
x	$18.00	/ton	
x	6.00	bulls	
÷	150.00	cows	
=	$0.72	/cow	

Vet & Medicine for Bulls

	$48.00	semen test	
+	$10.00	total vet cost/bull	
x	6.00	bulls	
÷	150.00	cows	
=	$2.32	/cow	

Replacement of Bulls

	$1,800	bull cost	
-	$250	bull salvage value	
x	20.00	% replacement rate	
x	6.00	bulls	
÷	150.00	cows	
=	$12.40	/cow	

Investment in Bulls

	$1,800	bull cost	
+	$250	bull salvage value	
÷	2.00	average	
x	3.00	% investment rate	
x	6.00	bulls	
÷	150.00	cows	
=	$1.23	/cow	

Buildings & Pasture Costs for Bulls

	$51.55	/bull pasture cost	
x	6.00	bulls	
÷	150.00	cows	
=	$2.06	/cow	
Total =	**$28.17**	**/cow**	

2.04 Fuel, Oil, Repairs & Maintenance

Machinery

	$1,400	annual fuel cost	
+	$1,300	oil, repairs & maintenance	
÷	150.00	cows	
=	$18.00	/cow	

Buildings,Fences etc.

	$900	repairs & maintenance	
÷	150.00	cows	
=	$6.00	/cow	
Total =	**$24.00**	**/cow**	

2.05 Utilities

	$1,500	annual cost	
÷	150.00	cows	
=	**$10.00**	**/cow**	

2.06 Marketing & Transportation

Trucking

Calves	142.50	calves	
x	575.00	lbs/calf	
x	$1.25	/cwt (trucking cost)	
÷	150.00	cows	
=	$6.83	/cow	
Cull Cows	12.00	cull cows	
-	2.00	cows died	
x	1,350.00	lbs/cow	
x	$1.25	/cwt (trucking cost)	
÷	100.00	lbs/cwt	
÷	150.00	cows	
=	$1.13	/cow	

Selling Commission				
Calves		142.50	calves	
	x	$15.75	/calf	
	÷	150.00	cows	
	=	$14.96	/cow	
Cull Cows		12.00	cull cows	
	-	2.00	cows died	
	x	$18.25	/cow	
	÷	150.00	cows	
	=	$1.22	/cow	
Total	**=**	**$24.14**	**/cow**	

2.07 Death Loss

	x	$700	/cow investment
	x	1.25	% mortality rate
	=	**$8.75**	**/cow**

2.08 Manure Removal

		$2,500	annual removal cost
	÷	150.00	cows
	=	**$16.67**	**/cow**

2.09 Insurance

		$700	$/cow investment
	x	$0.50	/$100 capital
	÷	100.00	/100
	=	$3.50	/cow
		$120,156	building and equipment investment
	x	$0.50	/$100 capital
	÷	100.00	/100
	÷	150.00	cows
	=	$4.01	/cow
		$45.00	liability
	÷	150.00	cows
	=	$0.30	/cow
Total	**=**	**$7.81**	**/cow**

2.10 Herd Replacement

	$800	/replacement heifer	_____
-	$200	/cull cow	_____
x	8.00	% replacement rate	_____
=	**$48.00**	**/cow**	_____

2.11 Miscellaneous

	$1,000	total office expenses	_____
÷	150.00	cows	_____
=	**$6.67**	**/cow**	_____

2.12 Operating Interest

(Operating interest is charged on one half of the subtotal operating costs)

	$400.41	subtotal operating costs	_____
÷	2.00	average	_____
x	6.00	% operating interest	_____
=	**$12.01**	**/cow**	_____

Capital Costs

Buildings & Water System		
Windbreak Fence	$2,380	
Feedlot Fence	$2,392	
Calf Shelters	$6,144	
Handling Facilities	$3,500	
Calving Barn (30'x32')	$9,600	
Waterers (3 @ $ 1000)	$3,000	
Pasture watering system	$4,000	
Pasture water source	$3,000	
Gates	$840	
Round Bale Feeders	$900	
Well & Pressure System	$3,500	
Hydro (6 poles @ $400)	$2,400	
Storage Bins	$3,500	
Total Building Cost	**$45,156**	
Machinery & Equipment		
Miscellaneous Machinery	$5,000	
Tractor & Loader ($100,000 @30%)	$30,000	
Bale Shredder	$13,000	
Stock Trailer	$12,000	
Truck ($30,000 @ 50%)	$15,000	
Total Machinery & Equipment Cost	**$75,000**	
Total Bldg., Mach. & Equip.	**$120,156**	
Total Breeding Herd Value	**$105,000**	
Total Capital Investment	**$225,156**	

B. Fixed Costs

3. Depreciation $\frac{\textbf{Original Cost - Salvage Value}}{\textbf{Useful Life}}$

3.01 Buildings & Water System (not including pasture water system)

	$38,156	original cost
-	0.00	salvage value
÷	20.00	years useful life
÷	150.00	cows
=	**$12.72**	**/cow**

3.02 Machinery & Equipment

$75,000	original cost	
- $15,000	salvage value	
÷ 10.00	years useful life	
÷ 150.00	cows	
= **$40.00**	**/cow**	

4. Investment

Original Cost + Salvage Value x Investment Rate
2

4.01 Buildings

$38,156	original cost	
+ $0.00	salvage value	
÷ 2.00	average	
x 3.00	% investment rate	
÷ 150.00	cows	
= **$3.82**	**/cow**	

4.02 Machinery & Equipment

$75,000	original cost	
+ $15,000	salvage value	
÷ 2.00	average	
x 3.00	% investment rate	
÷ 150.00	cows	
= **$9.00**	**/cow**	

4.03 Livestock

$700	/cow	
x 3.00	% investment rate	
= **$21.00**	**/cow**	

4.04 Pasture

A. Marginal Land
Investment

Land 5.00	acres/cow	
x $200.00	/acre	
x 3.00	% investment rate	
= $30.00	/cow	

Fence				
		$13,440	total fence investment	
	+	$0	salvage value	
	÷	2.00	average	
	x	3.00	% investment rate	
	÷	150.00	cows	
	=	$1.34	/cow	
Pasture Water System				
		$7,000	system & source	
	+	$0	salvage value	
	÷	2.00	average	
	x	3.00	% investment rate	
	÷	150.00	cows	
	=	$0.70	/cow	
Total Investment=		$32.04	/cow	
Depreciation				
Fence		$13,440	total fence investment	
	-	$0	salvage value	
	÷	20.00	years useful life	
	÷	150.00	cows	
	=	$4.48	/cow	
Water system		$7,000	system & dugout	
	-	$0	salvage value	
	÷	20.00	years useful life	
	÷	150.00	cows	
	=	$2.33	/cow	
Total	=	$6.81	/cow	
Taxes		5.00	acres/cow	
	x	$2.00	/acre	
	=	$10.00	/cow	
Total	=	**$48.86**	**/cow**	
B. Crop Land Investment				
Land		3.00	acres/cow	
	x	$375	/acre	
	x	3.00	% investment rate	
	=	$33.75	/cow	

Fence				
		$8,640	total fence investment	
	+	$0	salvage value	
	÷	2.00	average	
	x	3.00	% investment rate	
	÷	150.00	cows	
	=	$0.86	/cow	
Pasture Water System				
		$7,000	system & source	
	+	$0	salvage value	
	÷	2.00	average	
	x	3.00	% investment rate	
	÷	150.00	cows	
	=	$0.70	/cow	
Total Investment	=	$35.31	/cow	
Depreciation				
Fence		$8,640	total fence investment	
	-	$0	salvage value	
	÷	20.00	years useful life	
	÷	150.00	cows	
	=	$2.88	/cow	
Water system		$7,000	system & source	
	-	$0	salvage value	
	÷	20.00	years useful life	
	÷	150.00	cows	
	=	$2.33	/cow	
Total	=	$5.21	/cow	
Taxes				
		3.00	acres/cow	
	x	$5.50	/acre	
	=	$16.50	/cow	
Total	=	**$57.03**	**/cow**	

C. Crown Land:

Depreciation

Fence		9.38	miles of fence	
	x	$1,920	/mile	
	=	$18,000	fence cost	
	-	$1,800	salvage value	
	÷	20.00	years useful life	
	÷	150.00	cows	
	=	$5.40	/cow	
Water system		$7,000	system & source	
	-	$0	salvage value	
	÷	20.00	years useful life	
	÷	150.00	cows	
	=	$2.33	/cow	
Total Depreciation	=	$7.73	/cow	

Investment

Fence		$18,000	fence cost	
	+	$1,800	salvage value	
	=	$19,800	total invested	
	÷	2.00	average	
	x	3.00	% investment rate	
	÷	150.00	cows	
	=	$1.98	/cow	
Pasture Water System				
		$7,000	system & source	
	+	$0	salvage value	
	÷	2.00	average	
	x	3.00	% investment rate	
	÷	150.00	cows	
	=	$0.70	/cow	
Total Investment	=	$2.68	/cow	

Land Rental (includes taxes)

		$246	/quarter, rental rate	
	÷	12.00	cows/quarter	
	=	$20.50	/cow	
Total	**=**	**$30.91**	**/cow**	

D. P.F.R.A.: Community Pasture Grazing

Cows

	$0.36	cost/cow/day	
x	140.00	days	
=	$50.40	/cow	

Calves

x	$20.00	/calf/season	
x	142.50	calves on pasture	
÷	150.00	cows on pasture	
=	$19.00	/cow	

Total	=	**$69.40**	**/cow**	

Average (A,B,C,D)	=	**$51.55**	**/cow**

C. Labour

	9.00	hours/cow/year	
x	$10.00	/hour	
=	**$90.00**	**/cow**	

For further information contact your local MAFRI office.

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Cow-Calf Operating Facilities